

APHID FIELD NOTES.

BY GEORGE F. KNOWLTON, Utah Agricultural College, Logan, Utah.

Pemphigus Aphid Notes.—Some of the identifications listed below were made by my friends, Professor M. A. Palmer and A. C. Maxson.

Pemphigus balsamiferae Wms. on *Populus angustifolia*, Brigham Canyon, Utah, June 20, 1930; on *P. balsamifera* at Nephi, Utah, October 1942; in stomach of the small lizard, *Uta stansburiana stansburiana* (B.-G.), near Oak City, Utah, September 28, 1941; in *Populus* galls, Farmington, July 1940; Logan Canyon, July 11, 1937 (Knowlton-W. P. Nye).

P. betae Doane, on roots of *Rumex acetosella*, Forest Grove, Oregon (among wheat stubble), October 9, 1919 (A. C. Burrill); on *Populus* trunk, Pullman, Wash., Sept. 26, 1918 (Burrill); accidental in spiderweb on raspberry leaf, Lakeview, Utah, June 5, 1930; Berger and Burley, Idaho (D. E. Fox); *Chenopodium album* roots, Roosevelt, Utah, September 4, 1945.

P. bursarius (L.), on roots of head-lettuce, 35 miles South of Bozeman, Montana, September 10, 1940 (Mills and Cowan; Det. M. A. Palmer).

P. populi-caulis Fitch in galls on *Populus sargentii*, Grafton, Utah, June 18, 1935; Granite, Utah, on *Populus*, June 15, 1937; causing poplar leaves infested with galls, to fall prematurely at Bountiful, Centerville, Clinton, and Trenton, Utah, during August of 1940. *P. sargentii* damaged by this species and more severely by *Mordvilkoja vagabunda* (Walsh) at Richfield, Utah, July 25, 1941 (W. E. Peay-H. C. Bennion); Basin, Wyoming, September 12, 1941.

P. populi-ramulorum Riley in twig galls on *Populus sargentii* at Clinton, Utah, July 15, 1937 (Knowlton-C. F. Smith); Trenton, Utah, July 1, 1940; Basin, Wyoming, September 12, 1941, typical galls.

P. populi-transversus Riley in petiole galls on *Populus sargentii* and *P. deltoides*, causing affected leaves to fall prematurely, at Bountiful and Trenton, Utah, August 17, 1941; Grand Haven, Michigan, August 14, 1936 (H. G. Strom).

P. populi-verae Fitch in pocketlike leaf galls on *Populus angustifolia* at Mt. Emmons, Utah, August 17, 1937; Brigham City and Boxelder Canyon, Utah, June 22, 1932.

Pemphigus sp. on root of *Poinsettia*, Ardmore, Okla., December 8, 1937 (G. A. Bieberdorf).

Aphid Observations.—Several colonies of *Clavigerus smithiae* (Monell) were examined on willow, near Riverdale, Utah, on October 3, 1942. A two-spotted ladybird beetle, *Adalia bipunctata* (L.), was observed to be feeding on an immature specimen. Several *Anthocoris musculus* (Say) and three additional species of ladybird beetles also were present among the twig-infesting aphids.

An apterous *Capitophorus palmerae* Knlt. on *Chrysothamnus* at Truckee, California, June 23, 1944, was observed to be attacked by a *Nabis ferus* (L.). This aphid was moderately abundant on rabbitbrush.

Pea aphids, *Macrosiphum pisi* (Kalt.), were moderately abundant on sweet-clover in a shady orchard at Lehi, Utah, September 14, 1943. Examination of several plants revealed a *Nabis alternatus* Parsh. feeding on a mature apterous *pisi*.

A wingless *Pseudoeopameibaphis essigi* K.-S. on *Artemisia tridentata* at Wadsworth, Nevada, July 23, 1944, was being fed on by an *Orius tristicolor* (White).

At Bend, Oregon, on August 24, 1944, the writer observed an *Orius tristicolor* on *Artemisia tridentata* to be feeding on a tiny *Flabellomicrosiphum tridentatae* (Wilson). This tiny predator was very abundant on nearby, blossoming *Chrysothamnus viscidiflorus*, the flowers of which were teeming with western flower thrips.

***Neorhynchocephalus volaticus* (Williston) in Lower California (Diptera, Nemestrinidae).**—I have recently received from the California Academy of Sciences (through Dr. E. S. Ross) specimens of *N. volaticus* collected by E. S. Ross and G. E. Bohart, in October, 1941, at the following localities in Lower California: 10 miles northwest of La Paz; San Venancio; Canipole; and Las Animas, Sierra Laguna. These localities extend the range of the species somewhat farther west. Compare the records I published in 1930 (*Psyche*, XXXVII, pp. 290–291) and 1934 (*Jour. New York Ent. Soc.*, XLII, pp. 166–167). I have seen since a specimen from Valerio Trujano, State of Oaxaca, Mexico, at 4,500 ft. (collected by M. Embury). The Lower California specimens differ in no way from those I have seen from elsewhere. It is strange that the species has not yet been taken in California proper, so far as I know.—J. BEQUAERT, Museum of Comparative Zoölogy, Cambridge, Mass.